

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Rongzhen Yang et al. Art Unit: Unknown
Serial No.: Examiner: Unknown
Filed : October 28, 2003
Title : METHOD AND APPARATUS FOR REDUCTION OF MUSICAL NOISE
DURING SPEECH ENHANCEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Applicants call attention to the attached Information Disclosure Statement and documents listed on form PTO-1449.

This filing is being made with the filing of the application. No fee is required.

The documents are in the English language; hence no concise explanation is necessary per Rule 98(a) (3).

Consideration of the foregoing and enclosures plus the return of a copy of the enclosed form PTO-1449 with the Examiner's initials in the left column per MPEP 609 are earnestly solicited along with an early action on the merits.

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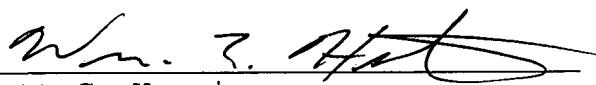
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Respectfully submitted,

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Substitute Form PTO-1449 (Modified)		U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 10559-854001	Application No.
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Rongzhen Yang et al.		
		Filing Date October 28, 2003	Group Art Unit	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						

Foreign Patent Documents or Published Foreign Patent Applications							
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation
							Yes No
	AH						
	AI						
	AJ						
	AK						
	AL						

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AM	S. F. Boll, "Suppression of Acoustic Noise in Speech Using Spectral Subtraction ", EIII Trans. ASSP, Vol. 27, No.2 April 1979, pp. 113-120
	AN	M.W. Callahan, "Acoustic Signal Signal Processing Based on the Short-time Spectrum", Ph.D. dissertation, University of Utah, Salt Lake City, UT, Mar. 1976
	AO	"Enhanced variable rate codec, speeck service opinion 3 for wideband spread spectrum digital systems, :Jan. 1996, TR-45.5, PN-3292 AD3 (published as IS-127-3)
	AP	Levent Arslan et al., "New Methods For Adaptive Noise Suppression", IEEE 1995
	AQ	Olivier Cappé, "Elimination of the Musical Noise Phenomenon with Ephraim and Malah Noise Suppressor", IEEE 1994
	AR	Yariv Ephraim et al., "Speech Enhancement Using a Minimum Mean-Square Error Short-Time Spectral Amplitude Estimator", IEEE 1984
	AS	TR 45, "Enhanced Variable Rate Codec, Speech Service Option 3 for Wideband Spread Spectrum Digital Systems", IS-127, July 19, 1996

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	